

PALS Medications for Cardiac Arrest and Symptomatic Arrhythmias

Drug	Dosage (Pediatric)	Remarks
Adenosine	0.1 mg/kg	Rapid IV/IO bolus
	Repeat dose: 0.2 mg/kg	Rapid flush to central circulation
	Maximum single dose: 12 mg	Monitor ECG during dose.
Amiodarone for pulseless VF/VT	5 mg/kg IV/IO	Rapid IV bolus
Amiodarone for perfusing tachycardias	Loading dose: 5 mg/kg IV/IO	IV over 20 to 60 minutes
	Maximum dose: 15 mg/kg per day	Routine use in combination with drugs prolonging QT interval is <i>not</i> recommended. Hypotension is most frequent side effect.
Atropine sulfate ¹	0.02 mg/kg	May give IV, IO or ET. Tachycardia and pupil dilation may occur but <i>not</i> fixed dilated pupils.
	Minimum dose: 0.1 mg	
	Maximum single dose: 0.5 mg in child, 1.0 mg in adolescent. May repeat once.	
Calcium chloride 10%=100 mg/mL (=27.2 mg/mL elemental Ca)	20 mg/kg (0.2 mL/kg) IV/IO	Give slow IV push for hypocalcemia, hypermagnesemia, calcium channel blocker toxicity, preferably via central vein. Monitor heart rate; bradycardia may occur.
Calcium gluconate 10%=100 mg/mL (=9 mg/mL elemental Ca)	60–100 mg/kg (0.6–1.0 mL/kg) IV/IO	Give slow IV push for hypocalcemia, hypermagnesemia, calcium channel blocker toxicity, preferably via central vein.
Epinephrine for symptomatic bradycardia ¹	IV/IO: 0.01 mg/kg (1:10 000, 0.1 mL/kg) ET: 0.1 mg/kg (1:1000, 0.1 mL/kg)	Tachyarrhythmias, hypertension may occur.

Epinephrine for pulseless arrest ¹	First dose:	
	IV/IO: 0.01 mg/kg (1:10 000, 0.1 mL/kg)	
	ET: 0.1 mg/kg (1:1000, 0.1 mL/kg)	
	Subsequent doses: Repeat initial dose or may increase up to 10 times (0.1 mg/kg, 1:1000, 0.1 mL/kg)	
	Administer epinephrine every 3 to 5 minutes.	
	IV/IO/ET doses as high as 0.2 mg/kg of 1:1000 may be effective.	
Glucose (10% or 25% or 50%)	IV/IO: 0.5–1.0 g/kg	For suspected hypoglycemia; avoid hyperglycemia.
	• 1–2 mL/kg 50%	
	• 2–4 mL/kg 25%	
	• 5–10 mL/kg 10%	
Lidocaine ¹	IV/IO/ET: 1 mg/kg	Rapid bolus
Lidocaine infusion (start after a bolus)	IV/IO: 20–50 µg/kg per minute	1 to 2.5 mL/kg per hour of 120 mg/100 mL solution or use “Rule of 6” (see Table 3)
Magnesium sulfate (500 mg/mL)	IV/IO: 25–50 mg/kg, Maximum dose: 2 g per dose	Rapid IV infusion for torsades or suspected hypomagnesemia; 10- to 20-minute infusion for asthma that responds poorly to β-adrenergic agonists.

Naloxone ¹	≤5 years or ≤20 kg: 0.1 mg/kg	For total reversal of narcotic effect. Use small repeated doses (0.01 to 0.03 mg/kg) titrated to desired effect.
	>5 years or >20 kg: 2.0 mg	
Procainamide for perfusing tachycardias (100 mg/mL and 500 mg/mL)	Loading dose: 15 mg/kg IV/IO	Infusion over 30 to 60 minutes; routine use in combination with drugs prolonging QT interval is <i>not</i> recommended.
Sodium bicarbonate (1 mEq/mL and 0.5 mEq/mL)	IV/IO: 1 mEq/kg per dose	Infuse slowly and only if ventilation is adequate.